

Abstract of the Disclosure

A method for determining the internal impedance of each battery cell within a system including at least one parallel string of serially connected battery cells without disconnecting the battery cells from the system, which initially makes measurements of two battery cells within each string to calculate the internal impedance of each of those two battery cells and to calculate a common impedance multiplier term for the rest of the battery cells in each string. The remaining battery cells in each string are individually measured and the common impedance multiplier term for that string is used to account for measured current which comes from the Thevenin equivalent voltage source of the rest of the system, in addition to current drawn from the battery cell being measured.